Applicant has also made the following correction, at page 28, line 24 – page 29 line 6.

> The circumferential tread stiffening benefits of the circumferentially oriented reinforcing cords 62 of the fabric underlay 60 (as shown in FIGURE 4A) derive from the manufacturing process during which the fabric [overlay] underlay is deployed upon the tire in such a way that causes the reinforcing cords to be prestressed in tension.

35 USC 112, second paragraph

Claims 1-12 are rejected under 35 USC 112, second paragraph as being indefinite. Various specifics are set forth with respect to claims 1, 2, 3, 5, 6, 7, 9 and 10.

Claim 1

With regard to claim 1, please note the following definitions:

"Belt Structure" or "Reinforcement Belts" means at least two annular layers or plies of parallel cords, woven or unwoven, underlying the tread, unanchored to the bead, and having both left and right cord angles in the range from **17E** to **27E** relative to the equatorial plane of the tire. **(page 12, lines 15-19)**

"Carcass" means the tire structure apart from the belt structure and the tread. **(page 13, lines 22-23)**

"Radial ply structure" means the one or more carcass plies of which at least one ply has reinforcing cords oriented at an angle of between 65° and 90° with respect to the equatorial plane of the tire. **(page 14, lines 16-20)**

Please also note the following text:

> " The tire 100 has a tread 120, a belt structure 160, a pair of sidewall portions 180,190, a pair of bead regions 220 and a carcass structure 250. Belt structure 160 consists of two belts 500,520 and a fabric overlay 540 deployed between the bottom portion of tread 120 and the upper parts of the belt structure. The carcass 250 includes a first ply 300 and second ply 400, a gas-impervious liner 340, a pair of beads 260, a pair of bead filler apexes 440, a first pair of inserts 460 and a second pair of inserts 480." **(page 15, line 24 – page 16, line 5)**

The preamble of **claim 1** is amended to delete "carcass" and "inserts", as follows:

1. (TWICE AMENDED) A pneumatic radial ply runflat tire [having] comprising a tread, [a carcass with] two sidewalls, [and] two inextensible annular beads, [and] a radial ply structure [of] having one or more radial plies [and one or more inserts], and a belt structure located between the tread and the radial ply structure, the runflat tire characterized by:

Claim 2

The Examiner is correct in noting that "radially inward" is somewhat redundant. Therefore, Claim 2 is amended as follows:

2. (TWICE AMENDED) The tire of claim 1 in which the fabric underlay [is disposed radially inward of the belt structure and having] comprises opposing marginal edges which extend laterally beyond lateral edges of the belt structure.

Claim 3

The "essentially of" language is deleted.

Claim 5

Claim 5 is amended as follows:

5. (TWICE AMENDED) The tire of claim 4 in which the cords of the fabric underlay are circumferentially oriented [cords of the fabric underlay] and are prestressed in tension during manufacturing of the tire.

Claim 6

Please take note of the following text:

> FIGURE 8B, like FIGURE 8A, is a meridional view (i.e., having equivalent orientation to that shown in FIGURE 2). FIGURE 8B contrasts the benefits conferred by the locational deployment of fabric underlay 60 of the present invention to the locational deployment of the fabric layer 540 in FIGURE 8A. The fabric underlay 60 separates the neutral respective tensile- and compression-stress bearing elements above and below the neutral bending axis A-A. In other words, the insertion of fabric underlay 60 between the plies 30,40 and the belts 50,52 corresponds to an increase in the web width W_b of the structural I-beam analog. More specifically, in FIGURE 8B, the reinforcing cords 62 in the fabric underlay 60 do not influence the stiffening of the tread; rather, it is the thickness of the fabric underlay 60 that is the operative element whose benefit to the enhancement of the lateral or meridional rigidity arises from the separating effect which the fabric underlay has in relation to the respective tensile- and compressive-stress-bearing plies 30,40 and belts 50,52. With respect to the I-beam analogy, the web width W_b is much greater than the corresponding web width W_a of the prior art tire, which means that the corresponding meridional bending moment of inertia of the structure of the present invention is much greater than that of the prior art tire. (page 25, line 16 – page 26, line 11)

Claim 6 is amended, as follows:

6. (TWICE AMENDED) The tire of claim 1 in which the fabric underlay [separates] increases a web width between the belt structure [from] and the ply structure.

Claim 7

The phrase "most preferably" is deleted.

Claim 9

Claim 9 is amended, as follows:

9. (TWICE AMENDED) The tire of claim 1 wherein at least one [or more] of the radial plies is reinforced by essentially inextensible cords.

Claim 10

Please note the following text at page 29, lines 28 – page 30, line 15:

> The fabric underlay 60 is applied upon the green carcass after the blow-up process on a conventional tire building drum. The blow-up process **[as] is well known in the art.** That is, the fabric underlay is applied to the green carcass after the carcass is initially blown up but prior to being "blown-up" into the belt and tread. There are two methods by which the fabric underlay 60 can be applied upon the blown up green carcass. **The first method is to apply the fabric underlay 60 as a single "ply" having approximately the width of the tread.** In this first method of installation, the reinforcement cords are inclined between about 0 degrees and about 30 degrees with respect to the equatorial plane EP of the tire, preferably between about 0 degrees and about 20 degrees with respect to the [equitorial] equatorial plane EP, and most preferably at about 0 degrees with respect to the equatorial plane EP.

The second method by which to install the fabric underlay 60 is by helically or spirally winding a ribbon of cord-reinforced, uncured rubber around the blown-up, green carcass. In this second method of application, the reinforcing cords 62 are disposed at an angle of between about 0 degrees and about 5 degrees with respect to the equatorial plane EP. The ribbon can be laid "lap" or "butt," which means that laterally adjacent portions of the ribbon can overlap or not, respectively. Normally the construction is butt in order to have uniform reinforcement and also to avoid the trapping of air under the overlapping layers of rubber.

A blow-up of the completed green tire takes place in the curing mold. This final blow-up, which has an amplitude of about 2 percent of the tire's diameter, provides the required pretension or prestressing of the reinforcing cords 62 of the final fabric [overlay] underlay 60.

The fabric underlay can be applied (1) as a single ply having approximately the width of the tread (in which case it would indeed be wound a single time and spliced, as suggested by the Examiner), **or** (2) by helically or spirally winding a ribbon of cord-reinforced, uncured rubber around the blown-up, green carcass with (2a) overlapping edges or (2b) non-overlapping edges. **Claim 10** broadly recites "circumferentially wrapping", which applies to both cases (1) and (2). **Claims 11 and 12** relate to cases (2a) and (2b), respectively.

Newly-presented **claims 13-18** relate to relate to the angles of the reinforcement cords in the "cord-reinforced elastomeric material" which forms the fabric underlay, in the various cases

discussed immediately hereinabove. **Claims 13 and 14** relate to cases 2a and 2b, respectively. **Claims 15-18** relates to case 1.

13. The method of claim 11 wherein the reinforcement cords are disposed at an angle of between about 0 degrees and about 5 degrees with respect to the equatorial plane (EP) of the tire.

14. The method of claim 12 wherein the reinforcement cords are disposed at an angle of between about 0 degrees and about 5 degrees with respect to the equatorial plane (EP) of the tire.

15. The method of claim 10 wherein the cord-reinforced elastomeric material is wrapped upon the blown-up green carcass as a single ply having approximately the width of the tread.

16. The method of claim 15 wherein the reinforcement cords are inclined between about 0 degrees and about 30 degrees with respect to the equatorial plane (EP) of the tire.

17. The method of claim 15 wherein the reinforcement cords are inclined between about 0 degrees and about 20 degrees with respect to the equatorial plane (EP) of the tire.

18. The method of claim 15 wherein the reinforcement cords are inclined at about 0 degrees with respect to the equatorial plane (EP) of the tire.

It is believed that the cited text, and the amendments to **claim 10** clarify and answer the Examiner's questions.

As described and claimed, the reinforcing cords are prestressed in the step (d), which is the "final blow-up" which has an amplitude of about 2 percent of the tire's diameter. Whether or not the reinforcing cords are prestressed in the step (c) would of course depend on whether there is an increase in the tire's diameter during such a blow up step. In the blow up step (c), the blown-up green carcass engages the belt structure and tread. There is, of course, some expansion of the carcass. However, the important step is step (d), wherein the carcass is expanded about 2%, and cured. The "prestress" occurs mainly as a result of the combination of blowing up and curing, as set forth in step (d). Step (c) is included for completeness, so that the tire has a belt structure and a tread.

Rejection under 35 USC 102(b) and 35 USC 103(a)

Claims 1, 2, 6, 8 and 9 are rejected under 35 USC 102(b) as being anticipated by Pirelli (EP 385 192) or Kleber (FR 2,425,334).

Claims 1, 2, 3, 6, 8 and 9 are rejected under 35 USC 102(b) as being anticipated by Willard (US 5,511,599).

Claims 3, 4 and 5 are rejected under 35 USC 103(a) as being unpatentable over Pirelli or Kleber or Willard.

Claims 1-9 are rejected under 35 USC 103(a) as being unpatentable over Roesgen (US 5,332,018) or Welter (US 4,262,726) or Iweta (US 4,842,682) or Cluzel (US 5,996,662), taken in light of Oare (US 5,368,082).

Claims 10-12 are rejected under 35 USC 103(a) as being unpatentable over Roesgen taken in view of Sumitomo (EP 335,588), Kohno (US 5,054,532), Verbauwhede (GB 1,487,426), Oare and optionally Welter.

Pirelli (EP 385 192) discloses a tire having sidewall inserts 10, a carcass ply 1 extending across the carcass of the tire and wrapping around the beads 2, and a belt 6 below the tread, all in a fairly conventional manner. The belt 6 is disposed between the tread band 5 and the carcass ply 1, in a conventional manner. The belt 6 may be metallic cords, parallel to one another, and inclined at an angle of 15-20 degrees with respect to the EP, in a conventional manner. (column 5, lines 1-13) The "core cord layer", which is presumably the carcass ply 1, "is surrounded by a strip 7 of textile cords parallel to each other in the strip and inclined .... between 15° and 20°, preferably in the region of 18°, but disposed to as to intersect the cords of the metal layer [6]." (column 5, lines 14-20).

Pirelli's strip 7 of textile cords would be the element which is comparable to the fabric underlay of the present invention.

Pirelli's strip 7 of textile cords is substantially wider than the layer 6 (belt) of metallic cords, and the edges 8 of the textile strip 7 are folded back axially, around the belt 6, towards the inside. If the strip 7 is positioned radially internal to the belt, the edges are further folded radially outwards around the belt. If the strip 7 is disposed radially externally to the belt, the edges are further folded radially inwardly around the belt. (column 5, lines 21-30).

Pirelli's strip 7 can be either between the belt structure and the radial ply, or external to the belt structure. The fabric underlay of the present invention is deployed exclusively between the belt structure and the radial ply structure, because its purpose is to support tensile loads, as described in detail in the specification.

In claim 1, the fabric underlay comprises "high-modulus reinforcing cords being aligned from about 0 degrees to less than 20 degrees". While Pirelli suggests the angles, it is silent as to the modulus of the material, although "a further strip" can be made of "thermoshrinkable material" and positioned radially externally to the structures (as an 'overlay', not as an 'underlay'). (column 5, lines 30-35)

Pirelli's strip 7 is, in all cases, wider than the belt structure, and is wrapped around the belt structure. In **claim 2**, the edges of the fabric underlay "extend laterally beyond the edges of the belt structure". Therefore, in **claim 1**, the edges of the fabric underlay may or may not extend beyond the edges of the belt structure. In any case, the edges of the fabric underlay do not wrap around the edges of the belt structure as in Pirelli. Figure 3 shows the underlay 60 of the present invention, with clarity. (Note that the cords of the underlay should be labeled "62".) In contrast to Pirelli, the fabric underlay 60 *is not folded back onto itself.*

As noted in the specification:

> "The fabric underlay 60 has lateral margins 27,28, which preferably lie beyond the lateral edges of the belt structure 16. While the lateral margins 27,28 preferably extend beyond the lateral edges of the belt structure 16, it is also within the terms of the invention for them to be slightly shorter than the belt structure." **(page 17, lines 13-18)** " The width of the fabric underlay 60 is approximately equal to the width of belt structure 16, preferably slightly wider than the belt structure. " **(page 18, lines 1-4)**

Attention is directed to newly-presented **claim 19**, which reads as follows (emphasis supplied):

19. A pneumatic radial ply tire comprising a tread, two sidewalls, two inextensible annular beads, a radial ply structure having one or more radial plies, and a belt structure located between the tread and the radial ply structure, the tire characterized by:

a fabric underlay disposed between the belt structure and the radial ply structure for supporting tensile loads during both normal-inflated and runflat operating conditions, the fabric underlay comprising high-modulus reinforcing cords being aligned from about 0 degrees to less than 20 degrees with respect to the equatorial plane of the tire;

the belt structure having lateral edges and the fabric underlay having lateral margins which are slightly shorter than the lateral edges of the belt structure;

the high-modulus reinforcing cords being synthetic or textile cords of a material selected from the group consisting of polyester, nylon, rayon, aramid, glass and other rigid, high-modulus materials.

Newly-presented **claim 20** corresponds to claim 5.

As further noted in the specification:

> "Cords 62 in FIGURES 3, 4A and 4B are high-modulus synthetic or textile cords constructed from the group of materials that includes, but is not limited to polyester, nylon, rayon, aramid, glass and other rigid, high-modulus materials." **(page 18, lines 17-21)**

The functional characteristic attributable to the fabric underlay of the present invention are critical. As noted in the specification:

> "In summary, the tread 120 and the underlying structures of the prior art tire 100 experience two modes of buckling under runflat conditions. One mode of buckling involves lateral, or meridional, buckling of the sort illustrated in FIGURES 5A through 5B, while the other mode of buckling is circumferential, as illustrated in FIGURES 6A through 6C. The present invention, which is shown as fabric underlay 60 in FIGURE 2, operates to stiffen the tread region of the tire 10 in such as way as to minimize both of these modes of buckling during runflat operation. The inventive concept thus improves the ability of runflat tire 10 to provide good handling characteristics during runflat operation and also contributes to an enhanced runflat service life of the tire as a result of decreased flexure-induced heating of the tread and sidewall regions. An additional feature of the present invention is that its tread-stiffening properties also reduce the formation of standing waves in normally inflated runflat tires when they are operated at high speed." **(page 21, line 15 – page 22, line 4)**

Pirelli essentially teaches away from the present invention by suggesting that the strip 7 can be either internal to or external to the belt 6. Pirelli's strip is for a different purpose.

Kleber (FR 2,425,334) discloses a tire. The reference is in the French language. In the tread region, there is a *ceinture inextensible* or *ceinture de summit* referred to by the general number (with arrow) 23 which, in FIG. 1, appears to comprise two thin layers 23.2 over (external to) a thick layer (not numbered) over two more thin layers 23.1. These two pairs of thin layers 23.1, 23.2 are referred to as *deux paires de nappes de renfort* and constiture *cables* (cords?) having an angle of 10-25 degrees.

Ceinture translates as belt, or girdle

Inextensible translates as inextensible

Summit translates as peak

deux translates as two

paires translates as pairs

nappes translates as cloth

Let us assume that the thick layer (not numbered) is a steel belt. Then, the underlying *nappes* would be the element which is comparable to the fabric underlay of the present invention. The Examiner notes that this "inner ply" is wider than the "upper plies". The Examiner also notes that the inner ply "can be considered to separate the belt from the carcass", which is understood to mean separate the belt from the ply.

It is not apparent whether the inner *nappes* 23.1 contain high-modulus reinforcing cords. See **claim 1**. See also newly-presented **claim 19**.

Willard (US 5,511,599) discloses a tire having what the Examiner cites as fabric underlay 82 having cords at 16-30 degrees, and being wider than the belt ply 84.

It is noted in Willard (column 9, line 65 through column 10, line 22; emphasis supplied):

> "The belt package 80 is located radially outward of the carcass layers 62, 64 and 68 in the crown portion 14 of the tire 10. In an embodiment of this invention, the belt package has a **wide inner belt 82** and at least one narrower outer belt 84 (FIGS. 2 and 3). A cap ply 86, having a width to axially extend beyond both lateral edges of the innermost belt 82, is included as part of the preferred belt package 80. These belt components allow the lateral areas of the crown portion 14 to be more compliant in compression, which improves the endurance of the tire when running deflated. This results in a redistribution of the load so that the tread portion 12 at its two shoulder regions can fully support the loads from the sidewall portions 40. **Reinforcing members of the inner belt 82 are preferably of a metallic (i.e. steel) material.** Reinforcing members are substantially parallel in each belt 82 and 84 and can be made of an aromatic polyamide or a metallic (i.e. steel) material. Reinforcing members of the outer belt 84 are also preferably of a metallic material. Belt reinforcing members are at an acute angle (16 to 30 degrees) with respect to the midcircumferential plane P of the tire. The cap ply 86 has reinforcing members preferably of a polyamide multi-filament (i.e., nylon) material which are approximately parallel to the midcircumferential plane. Other belt package and cap ply materials that maintain structural integrity of the tire may be used for the reinforcing members within the scope of this invention."

Willard teaches a wide inner belt 82 with reinforcing members preferably of a metallic (i.e., steel) material. Compare **claims 1 and 19** of the present invention, both of which recite a "fabric underlay" which, in **claim 19** is narrower than the belt and of non-steel materials.

Regarding **claims 3-5** being obvious over Pirelli, Kleber and Willard, the feature of **claim 4** is key to the operation of the invention, and is explained and illustrated in great detail in the specification, using the analog of an I-beam. The references do not suggest that the "underlay is located on the tensile side of the neutral bending axis of the combined belt structure, fabric underlay and ply structure." Given the somewhat unique function of the underlay of the present invention, it is not clear that the choice of materials is at all obvious, as suggested by the Examiner. There is no teaching as to why the claimed non-steel materials are obvious, and steel is not obvious. Since the underlay itself might appear, at first glance, to be part of a belt package, it would seem that steel would be an obvious choice of materials. Compare **claims 3 and 19**.

Roesgen (US 5,332,018), Welter (US 4,262,726), Iweta (US 4,842,682) and Cluzel (US 5,996,662) are cited, in view of Oare (US 5,368,082) as disclosing radial tires including belts and underlying low angled plies, the cords being at low angles inclusive of zero degrees.

Again, it is not clear that these references teach a fabric underlay between the belt structure and the radial ply structure for supporting loads, and which comprises a high-modulus material (**claims 1 and 19**) and which is narrower than the belt (**claim 19**).

The method claim(s)

As noted above, with regard to the 112/2 rejection of **claim 10**,

The fabric underlay 60 is applied upon the green carcass after the blow-up process on a conventional tire building drum. The blow-up process is well known in the art. That is, the fabric underlay is applied to the green carcass after the carcass is initially blown up but prior to being "blown-up" into the belt and tread. There are two methods by which the fabric underlay 60 can be applied upon the blown up green carcass. The first method is to apply the fabric underlay 60 as a single "ply" having approximately the width of the tread. In this first method of installation, the reinforcement cords are inclined between about 0 degrees and about 30 degrees with respect to the equatorial plane EP of the tire, preferably between about 0 degrees and about 20 degrees with respect to the equatorial plane EP, and most preferably at about 0 degrees with respect to the equatorial plane EP.

The second method by which to install the fabric underlay 60 is by helically or spirally winding a ribbon of cord-reinforced, uncured rubber around the blown-up, green carcass. In this second method of application, the reinforcing cords 62 are disposed at an angle of between about 0 degrees and about 5 degrees with respect to the equatorial plane EP. The ribbon can be laid "lap" or "butt," which means that laterally adjacent portions of the ribbon can overlap or not, respectively. Normally the construction is butt in order to have uniform reinforcement and also to avoid the trapping of air under the overlapping layers of rubber.

A blow-up of the completed green tire takes place in the curing mold. This final blow-up, which has an amplitude of about 2 percent of the tire's diameter, provides the required pretension or prestressing of the reinforcing cords 62 of the final fabric [overlay] underlay 60.

It is therefore seen that the fabric underlay can be applied (1) as a single ply having approximately the width of the tread (in which case it would indeed be wound a single time and spliced, as suggested by the Examiner), or (2) by helically or spirally winding a ribbon of cord-reinforced, uncured rubber around the blown-up, green carcass with (2a) overlapping edges or (2b)

non-overlapping edges. Claim 10 broadly recites "circumferentially wrapping", which applies to both cases (1) and (2). Claims 11 and 12 relate to cases (2a) and (2b), respectively.

Newly-presented **claims 13-18** relate to relate to the angles of the reinforcement cords in the "cord-reinforced elastomeric material" which forms the fabric underlay, in the various cases discussed immediately hereinabove. **Claims 13 and 14** relate to cases 2a and 2b, respectively. **Claims 15-18** relates to case 1.

13. The method of claim 11 wherein the reinforcement cords are disposed at an angle of between about 0 degrees and about 5 degrees with respect to the equatorial plane (EP) of the tire.

14. The method of claim 12 wherein the reinforcement cords are disposed at an angle of between about 0 degrees and about 5 degrees with respect to the equatorial plane (EP) of the tire.

15. The method of claim 10 wherein the cord-reinforced elastomeric material is wrapped upon the blown-up green carcass as a single ply having approximately the width of the tread.

16. The method of claim 15 wherein the reinforcement cords are inclined between about 0 degrees and about 30 degrees with respect to the equatorial plane (EP) of the tire.

17. The method of claim 15 wherein the reinforcement cords are inclined between about 0 degrees and about 20 degrees with respect to the equatorial plane (EP) of the tire.

18. The method of claim 15 wherein the reinforcement cords are inclined at about 0 degrees with respect to the equatorial plane (EP) of the tire.

As described and claimed, the reinforcing cords are prestressed in the step (d), which is the "final blow-up" which has an amplitude of about 2 percent of the tire's diameter. In the first step (a) the green carcass, which has been laid up as a cylinder, is blown up into a toroidal shape. (This first step is well known. See, e.g., Welter, column 2, lines 49-62). In the step (b) the cord-reinforced fabric underlay is wrapped onto the blown-up green carcass. This is before the tread/belt package is applied. In the step (c), the tread / belt package is applied, so that the fabric underlay is interior of the typically steel belt(s). Whether there is an increase in diameter at this step is not particularly relevant. In a final step (d), the blow-up green carcass, with fabric underlay wrapped thereupon, and with the tread/belt package applied, is blown up into a curing mold, which prestresses the reinforcing cords of the fabric underlay.

Regarding the methods, as set forth in **claims 10-12**, the following are cited:

Roesgen (US 5,332,018) discloses a spirally wound strip 26 of a cord reinforced elastomer extending between folded portions (24, 25) of a belt ply (22, 23) of a belt assembly (21). In Figures 1 and 2, the strip (26) clearly appears to be radially-outward of the belt, as part of the belt

assembly, *per se*. The present invention is directed to fabric underlay which is applied (step b) before (hence inward of) the belt assembly (step c).

Sumitomo (EP 335,588), which teaches that spirally winding high modulus filaments to form a green tire reduces swelling when mounting the raw tire in the vulcanizing mold, making it impossible to vulcanise and to mold the tire correctly. This appears to deal with the radial plies, and therefore is not particularly pertinent to the present invention.

Kohno, et al. (US 5,054,532) teaches a wavy crown reinforcing layer 2 underneath cross belt layers 1. It does not teach the steps of the present invention, as claimed.

Verbauwhede (GB 1,487,426) teaches, Figures 3, 4a-4c, different ways of winding a strip onto a tire carcass. The strip is steel. It forms the steel belt of the tire. This reference has no use other than showing alternate winding techniques (e.g., lap and butt), and clearly (and understandably) states that applying a single steel cord by wrapping this cord around the carcass is disadvantageous. In the present invention, wrapping a single ribbon around the carcass is not disadvantageous. See **claim 15**.

Oare (US 5,368,082) discloses sidewall inserts (fillers) for run flat performance, and also discloses an aramid overlay radially outwardly of the reinforcing belt. This does not seem to be particularly relevant to the claimed technique of wrapping the fabric underlay on the blown-up green tire carcass.

Welter (US 4,262,726) discloses a radial tire with a low angle carcass overlay ply. A single ply 20 is disposed between the carcass plies (7) and the belt structure (13; 15/16). The single ply or carcass overlay is reinforced with parallel cords which extend circumferentially of the tire. Further, the reinforcement cords of the carcass overlay are inextensible when the tire is molded and vulcanized, but elongatable in correlated relation to the blow-up ratio of the tire from a cylindrical to a toroidal shape. (see Abstract) The belt underlay, or carcass overlay 20 is interposed between the belt structure 13 and the carcass ply 7, and has lateral margin edges (21,22) which extend beyond the belt structure into the sidewalls (9,10) of the tire (5). The carcass overlay (20) consists of a single ply reinforced with parallel cords (25) that extend substantially circumferentially of the tire, at cord angles E in the range of from 0 to 13 degrees. (column 2, lines 18-48) In Welter, the carcass overlay (20) is laid up "by wrapping the cardass ply 7 and the overlay 20 successively around a cylindrical tire building drum." (column 2, lines 49-52) In contrast thereto, in the present invention, the ribbon is wrapped around the blown-up green tire carcass, which is decidedly not cylindrical. In other words, Welter's wrapping occurs in or before step (a).

Claim Count and Newly-Presented Claims

There are now 20 claims, three of which (1, 10, 19) are in independent form. The newly-presented claims 13-20 have been discussed, hereinabove.

FIGURE 3 has been amended with a red line correction where "60", referring to the cords has been changed to - - 62- - to agree with the specification. Once the amendment has been accepted and the application allowed, corrected formal drawings will be filed.

Conclusion

The claims should be allowed.

No new matter is entered by this Amendment.

Applicant has made a diligent effort to amend the claims of this application so that they define novel structure which is non-obvious. If, for any reason, the claims of this application are not believed to be in full condition for allowance, applicant respectfully requests the constructive assistance of the Examiner in drafting one or more acceptable claims pursuant to MPEP 707.07(j) or in making constructive suggestions pursuant to MPEP 706.03(d) in order that this application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,

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